50X1-HUM

Next 1 Page(s) In Document Denied

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SECURITY INFORMATION

German Democratic Republic

DATA ON EXPERIMENTS TO OBTAIN HIGH-TEMPERATURE COKE FROM BROWN COAL

The difference between low-temperature coke and high-temperature brown-coal coke is that the former is formed at temperatures between 500 and 600 degrees, whereas the latter is formed at higher-than-normal coking temperatures, that is, between 900 and 1,200 degrees. Although the production of high-temperature brown-coal coke developed more rapidly in the countries which have black-coal coke deficiencies, the former is not an emergency or makeshift device. The result of 20 years of research, high-temperature brown-coal coke was developed chiefly in Germany, where the basic principles for its production were established before 1945. 50X1-HUM unsuccessful attempts to produce the coke, the laboratory experiments conducted by Dr. Rammler and Dr. Bilkenroth as to the proper gra50X1-HUM and maximum water content of the briquettes. The method developed by these two men was based on the principle of producing brown-coal briquettes without binding material, and of then transforming the briquettes into coke by indirect heating. At the beginning of 1951, at the August Bebel Black-Coal Coking Plant in Zwickau, Rammler and Bilkenroth succeeded, for the first time, in transforming a complete charge of 8 tons 50X1-HUMtte into useable brown-coal hard coke. The next step was the development of proper equipment for the coking process the coke is perfectly suitable for metallurgical purposes. It is also emphasized that a brown-coal coking installation must be coupled with briquette factories, because the production method is a continuous process which requires that the briquettes be subjected to the coking process immediately after production, and that they, therefore, cannot be re-heated. 50X1-HUM a by-product of the coke, a gas which can be used for industrial as well as home-consumption purposes. The coke, as a gasification and reduction agent, is useable for the same purposes as black-coal coke; moreover, it is expected that the former will be used in lime-burning and in the production of carbide. 50X1-HUM scale coking installation has been under construction at Lauchhammer since 1 October 1951. Scheduled to have a capacity of 650,000 tons of coke annually, the installation is in a location which has several hundred million tons of brown-coal deposits. 50X1-HUM

DESTROY AFTER USE

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